Key Characteristics Of Mood Stabilizers

Available preparations	Lithium carbonate (Eskalith, Lithonate, Lithotabs; 150, 300, 600-mg tablets, capsules) Lithium citrate liquid (8 mEq/5 mL) Extended-release lithium (Eskalith CR, 450 mg; Lithobid, 300 mg)	Divalproex sodium (Depakote, 125-, 250-, 500-mg tablets; 125-mg sprinkle capsules) Valproate sodium injection (Depacon) Valproic acid (Depakene, 250-mg capsules; 250 mg/5 mL syrup) Extended-release divalproex sodium (Depakote ER, 250, 500 mg)	Carbamazepine (Tegretol; 100-mg chewable tablets; 200-mg tablets) Extended-release carbamazepine capsules (Equetro, 100, 200, 300 mg; Carbatrol, 200, 300 mg) Carbamazepine suspension (100 mg/5 mL) Extended-release carbamazepine tablets (Tegretol XR, 100, 200, 400 mg)	Lamotrigine (Lamictal, 25-, 100-, 150-, 200-mg tablets; Lamictal CD [chewable dispersible], 2-, 5-, 25-mg tablets)
Half-life (hours)	24	96	Initially, 25–65; decreases to 12–17 because of autoinduction	25–33[b]
Starting dosage	300 mg twice daily	250 mg three times a day or 20 mg/kg[c]	Tablets/capsules: 200 mg twice daily[d]; suspension: 100 mg four times a day	25 mg/day[b]
Blood level	0.8–1.2 mEq/L	45–125 μg/mL	Not helpful; monitor for signs or symptoms of toxicity	Not monitored; target dose of lamotrigine is 200 mg/day

Metabolism	Renal	Hepatic	Hepatic	Hepatic
Contraindications[e]	Unstable renal function	Hepatic dysfunction	Hepatic dysfunction, bone marrow suppression	Previous hypersensitivity to lamotrigine
Key side effects, risks, and features	Nephrogenic diabetes insipidus Reversible hypothyroidism Tremor Benign leukocytosis Weight gain Narrow therapeutic index Potentially fatal toxicity Risk of Ebstein's anomaly with first-trimester exposure	Titration or loading dose strategies Rare hepatotoxicity Rare pancreatitis Polycystic ovarian syndrome Weight gain Tremor Alopecia Rare blood cell dyscrasias Risk of neural tube defects with first-trimester exposure	Cytochrome P450 inducer (oral contraceptive failure) Autoinduction Rare blood cell dyscrasias: aplastic anemia, agranulocytosis Hepatotoxicity Rash risk, including Stevens-Johnson syndrome Risk for SIADH Teratogenicity risk: neural tube defects, craniofacial defects	Rash risk in 5%–10% Rarely, life-threatening rash (including Stevens-Johnson syndrome) Risk minimized by low starting dose and slow titration Metabolism inhibited by valproate Metabolism induced by carbamazepine
Pretreatment laboratory evaluation	Chem 20,[f] CBC, TSH level determination, ECG (if patient is 40 years of age or older or has cardiac disease), pregnancy test	AST and ALT level determination, pregnancy test	AST, ALT, CBC, sodium level; pregnancy test	None; might consider a pregnancy test

Note. SIADH = syndrome of inappropriate secretion of antidiuretic hormone; CBC = complete blood count; TSH = thyroid-stimulating hormone; ECG = electrocardiogram; AST = aspartate aminotransaminase; ALT = alanine aminotransaminase.
[a]The atypical antipsychotics are not included in this table.

[b]The effective half-life of lamotrigine approximately doubles with valproate and decreases by approximately half with carbamazepine, primidone, phenytoin, phenobarbital, and rifampin; therefore, initial doses may vary depending on concomitant medications. The reader should refer to current product labeling for specific information regarding drug–drug interactions, their effects on lamotrigine, and lamotrigine dosing guidelines.
[c]Increase dose by 10%–20% when converting from valproate, divalproex, or valproic acid to the extended-release formulation of divalproex sodium.
[d]100 mg twice daily if given in combination with a neuroleptic or lithium.
[e]Lithium, valproate, and carbamazepine should be avoided in pregnancy, if possible. Recent reports also have noted cases of oral clefts with lamotrigine use.
[f]Especially serum urea nitrogen, creatinine, sodium, and calcium levels.

Source. Adapted from Marangell LB, Martinez JM: *Concise Guide to Psychopharmacology*, 2nd Edition. Arlington, VA, American Psychiatric Publishing, 2006, pp. 138–141.